DOCUMENT RESUME

ED 274 566 SO 017 512

AUTHOR	Zicht, Barbara, Ed.; And Others
TITLE	Productivity and Capital Goods.
INSTITUTION	Lesley Coll., Cambridge, Mass. National Center of Economic Education for Children.
SPONS AGENCY	Joint Council on Economic Education, New York, N.Y.
PUB DATE	81
NOTE	10p.
AVAILABLE FROM	Joint Council on Economic Education, 2 Park Avenue, New York, NY 10016 ($15.00 per year, 3 issues).
PUB TYPE	Guides - Classroom Use - Guides (For Teachers) (052) -- Collected Works - Serials (022)
JOURNAL CIT	Elementary Economist; v3 n2 1981-82
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Activity Units; *Capital; Concept Teaching; *Economics Education; Elementary Education; Experiential Learning; Human Capital; Investment; Labor; Learning Activities; Manufacturing; Problem Solving; *Productivity; Technology

ABSTRACT

Providing teacher background on the concepts of productivity and capital goods, this document presents 3 teaching units about these ideas for different grade levels. The grade K-2 unit, "How Do They Do It?," is designed to provide students with an understanding of how physical capital goods add to productivity. Activities include a field trip to observe capital in use, a card matching game, cookie baking, a concentration game, a capital contest, a puzzle story page, and a hands-on bulletin board. The grade 3-4 unit, "Who Needs It?," helps students gain an understanding of the factors of production, and the relationship between technology, productivity, and natural resource use. "Paper Cup Factory," the grade 5-6 unit, introduces the concepts of productivity, specialization, and technology through the construction of paper cups, an anagram puzzle, a worksheet structured to illustrate cause and effect, and a crossword puzzle featuring economic terms presented in the unit. (JDH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED274566

THEME: PRODUCTIVITY AND CAPITAL GOODS

THE ELEMENTARY ECONOMIST
VOLUME 3, NO.2
1982

EDITED BY

BARBARA ZICHT
ELEANOR SABINI
KATHRYN FURLONG

THE NATIONAL CENTER OF ECONOMIC EDUCATION FOR CHILDREN
AT LESLEY COLLEGE
CAMBRIDGE, MA 02238

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

✓ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Patricia K. Elder

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

BEST COPY AVAILABLE

SO 017 512

The
Elementary Economist
Vol. 3, No. 2 The National Center of Economic Education for Children

RECEIVED © 1982

THEME: PRODUCTIVITY AND CAPITAL GOODS

IN THIS ISSUE:

Teaching Activities
K-2: How Do They Do It? Page 2
3-4: Who Needs It? Page 4
5-6: Paper Cup Factory Page 6
ERIC Wants the Economist Page 8
News Page 8

DIRECTIONS

Productivity is a measure of output per unit of resource input. Both output and input are measured in real or physical terms. Output refers to the number of goods or services produced, and input refers to the number of units of a resource (land, labor, or capital) used to produce the output. From this basic definition, several *productivity* measures can be constructed depending on the specific resource input. Since labor usually is the largest input in production processes and is the easiest resource input to measure, labor *productivity*, or output per unit of labor, is the most widely reported measure of *productivity*.

An example may help illustrate labor *productivity* in the elementary classroom. Suppose four students usually produce 100 widgets (a hypothetical product) in a specified time period, while another team of four students usually produces only 80 widgets during the same time period. Labor *productivity* is determined for each team by dividing output by the number of workers, making the *productivity* of the first team 25 widgets per worker, and the *productivity* of the second team, 20 widgets per worker. Whenever students produce a standardized product during a specified time period, the activity can be used to illustrate the concept of *productivity*.

Labor *productivity* does not measure the "laziness" or the "hard work" of workers. The production of any good or service involves a combination of resource inputs. Workers' *productivity* depends on the tools, machines, and raw materials they use in production. For example, a farmer may be able to increase *productivity* (crop yield) by using improved crop seeds, fertilizers, or equipment even if he did not work harder. The same situation applies to manufacturing production. Automobile workers may be able to increase *productivity* by using better tools which enable them to complete a job faster. *Productivity* increases reflect the saving of labor time per unit of output and may be due to factors other than work effort.

What, then, are the major sources of *productivity* improvements? As suggested above, a major factor in increasing *productivity* is increasing the quantity and quality of *capital*. *Capital* consists of physical goods, such as buildings, machines, and equipment which are used to produce consumer goods or services. In this usage, *capital* does not mean money. Teachers can avoid confusing students by using the term *capital good* rather than just *capital* when discussing the economists' definition of the term. Using *capital goods* to produce consumer goods is a roundabout or indirect form of production since a *capital good* has to be produced before it can be used in the production process to make consumer goods. If a person is stranded on a desert island and can obtain food only by fishing, there are two possible forms of food production. The person can either try to catch the fish by hand, or take a roundabout approach and invest time, energy, and resources in constructing a fishing pole and use this *capital good* for fishing. While an initial investment may be required to obtain a *capital good*, the result of the investment can be a saving of labor time.

In industry, investment in *capital goods* has resulted in substantial saving of labor time and increase in output. In the home, investment in *capital goods* for the kitchen (e.g., dishwashers, microwaves, food processors) has increased labor *productivity* in food production. The effect of an increase in *capital goods* also can be shown in the elementary classroom. In the widget example, if the making of widgets requires extensive punching of holes in paper, then *productivity* could be increased by investing in a hole punch. Moreover, adding to the quantity of *capital goods* by obtaining more hole punches can lead to greater output per worker because students waste less time sharing the tools.

Productivity also can be increased by improving the quality of *capital goods*. Technological progress can lead to improvements in the construction of *capital goods*. This change is illustrated in widget production by considering what would happen to production levels when a three-hole punch replaces several one-hole punches. New tools and equipment are being developed continually, using more sophisticated technology to increase production.

Improving the quality of labor, or investing in human *capital*, is as important a means for increasing *productivity* as investing in physical *capital goods*. With more education and training, workers can do more specialized jobs and be more efficient with the use of their labor time. Using a three-hole punch instead of a one-hole punch may require some investment in the training of student workers before maximum output is achieved. In business, the use of computers has required extensive training or re-training of the labor force so that the new technology can be used. Basic education also is essential to *productivity*, for workers must be able to read instruction manuals and write reports. In general, the more education and training a work force has received, the greater its potential for performing a large variety of tasks with greater efficiency.

Large scale production may also influence *productivity*. This is called economies of scale. Generally, when production expands, a critical point is reached at which specialization and division of labor can play a vital role in increasing *productivity*. Complex procedures

(continued on page 8)

The National Center of Economic Education for Children, Lesley College, Cambridge, Mass. 02238

K-2

HOW DO THEY DO IT?

by Barbara Burkhead

Barbara Burkhead teaches third grade in Bloomington, Indiana, and has taught in Texas, California, and South Korea. She has participated in a program for economic education at Indiana University.

Productivity and Capital Goods

Capital goods are tools of production used to produce additional goods and services. The quality and quantity of *capital goods* used in production affect the level of *productivity*.

Children use *capital goods* every day. This unit is designed to provide students with an understanding of how physical *capital goods* add to *productivity* in the world around them.

The vocabulary words should be discussed before the teaching activities are utilized.

Goals

The students will:

1. Understand and use the following vocabulary: *capital goods*, producer, production, manufacture, manufacturer, output.
2. Understand and discuss the relationship between *capital goods* and *productivity*.
3. Identify and list *capital goods* necessary for various productive outputs.

Teaching Activities

1. **How Do They Do It?**
   Take a field trip to see obvious physical *capital* in use. Suggestions: a bakery, a newspaper printing plant, a farm during planting or harvest time. Upon return, make a list of all items of physical *capital* seen in use (e.g., bakery: pans, ovens, rolling pins, cake decorators). What would happen if certain items were missing? Would production be slowed, made more difficult, stopped altogether? Are there *capital goods* which could be added to facilitate or increase *productivity*? (Newer stoves, additional pans, more bakers).
2. **Capital Card Game.** (2 or 3 players)
   Supplies needed: twenty-four 3 x 5 cards with illustrations drawn or cut from magazines. Color-code the fronts of the cards with a dot for self-checking of sets.

Producer	Capital Good	Product
carpenter	hammer	house
baker	bowl and spoon	cookies
farmer	tractor	corn
doctor	stethoscope	smiling, happy child
milk deliverer	delivery truck	glass of milk
rancher	horse	cattle in a pen
fish catcher	fishing boat	fish on a dinner plate
artist	easel and paints	painting

Object: to collect as many sets of producer, *capital goods*, and products cards as possible. Player with the most sets at the end of the game wins.

One child is chosen to be dealer. The dealer gives each player five cards. The remaining cards are stacked face down in the center of the table. One card is turned face up to start the discard pile. Player to dealer's right draws one card from either stack and makes a set if he can, which he lays near his place. If he cannot make a set, he must discard. No player may have more than five cards. (If the discard pile is depleted, it may be replenished from the stack.) Each player takes his turn, continuing around the circle until all sets are made. The player with the most sets wins. (For kindergarten and beginning first-grade students the game may be modified to use fewer sets or only producer and *capital goods* cards.)

3. **Add-A-Good Cookies.**

Basic recipe: (3 dozen cookies)
Mix in electric skillet and boil for one minute:
- 2 cups sugar
- 1/2 cup milk
- 1 stick margarine

Turn heat to "off" and add:
- 1/2 cup extra-crunchy peanut butter
- 3 cups uncooked quick-cooking oatmeal
- 1/2 teaspoon vanilla

Stir well and drop from teaspoon onto waxed paper. (Four tablespoons cocoa may be added to first mixture for a chocolate flavor. In this case, increase peanut butter in second mixture to 1 cup.)

This activity is more successful when conducted with small groups (no more than 8 students). Each child can then take a more active part in both the discussion *and* the cookie making. Production can be repeated once or twice and the extra cookies shared with neighboring classes who have been enjoying the aroma or sold at a class bake-sale after lunch.

On a table around which the students are gathered set out a bag of sugar, a carton of milk, margarine, a jar of peanut butter, a box of oatmeal, a bottle of vanilla flavoring. The recipe should be written on a

To receive a free subscription to *The Elementary Economist* ©, please send us your name, home mailing address, name of school, and school system (printed or typed only).

large card or on the chalkboard. Read the recipe with the children. With no further preparation or discussion, ask the children to go ahead and make the cookies. Their responses should be: "But there's no bowl" or "How can we measure?" or "What do we use to stir?" or "Where do we cook them?"

As the need for each *capital good* is mentioned, place it on the table. When sufficient *capital goods* are collected, help the students make the cookies.

As the cookies are being enjoyed later by the whole class, list the *capital goods* needed to make the cookies and discuss how *capital goods* influence *productivity*. Could any *capital good* have been omitted? What would have been the result? Were there other *capital goods* which might have increased or improved *productivity* (reduced production time or increased amount produced in the same time)?

4. **Capital Concentration.** (2 players)
Equipment needed: fourteen 3 x 3 cards cut from poster board. By drawing the pictures or using pictures cut from magazines, prepare seven "producer-*capital goods* pairs." Each pair is color-coded on the front side for self-checking.

Producers	Capital Goods
nurse	hypodermic needle
chef	pots and pans
driller in a hardhat	oil derrick
mail deliverer	mail cart or bag
mechanic	tools (wrench, pliers)
carpenter	hammer, saw
construction worker	caterpillar tractor

(For more than two players, increase the number of pairs.)

Cards are shuffled and turned face down. First player turns two cards face up to try for a matching pair. If he gets a match, he keeps the pair and tries again, continuing until he turns up two cards which are not a match. These two are then turned face down, and the other player takes his turn. This process is repeated until all cards are taken. The player with the most pairs wins.

5. **Capital Contest.**
Each day a manufactured product is chosen by the teacher. The children individually list (with the teacher's help, if necessary) the *capital goods* they consider essential to produce that product. The child who produces the longest list of appropriate *capital goods* is proclaimed "Master Manufacturer" and wears a special badge for the remainder of the day. The following day another product and another master manufacturer are chosen.

6. **Production Puzzle Page.**
After a discussion of how *capital goods* add to *productivity*, read the "Can You Help????" story to the class. Each student might like to write (with teacher's help) a story of his own to share after trying this one. This activity may be done individually if children can read and write.

Can You Help????

Simon Seedling is a gardener who works for the king. Most of the time he likes his job, but today he feels a little nervous. The king has told him to make a new garden for the queen, a garden different from any garden ever seen before—or lose his head at sunset!

Simon is planting lollipop trees along the fence, using a trowel to dig the holes for the large trees. (He might do it faster and increase his *productivity* if he used a *[shovel]*.)

The gumdrop bushes he set out early this morning are dropping their gumdrops because they need water. Simon is watering them by carrying water in his hat. (He could do it faster and increase his *productivity* if he used a *[bucket]* or *[hose]*.)

He needs new topsoil in the corner of the garden to plant chocolate drops. He carries the soil to the corner in his trouser pockets. (He could get more soil there faster and increase his *productivity* if he used a *[wheelbarrow]*.)

The tops of the ice-cream-cone trees need to be trimmed. Simon is breaking off one twig at a time with his fingers as he jumps up to reach them. (He could finish faster and do a better job [increased *productivity*] with a *[set of clippers]* and a *[ladder]*.)

THANK YOU for helping Simon!!

7. **Hands-On-Bulletin Board.**
Display pictures of six products attractively on a bulletin board. Fasten a colored envelope near the bottom of the board beneath each product. In a nearby box place cards on which are names or pictures of *capital goods* needed to produce each product. Color-code the cards with the envelopes for self-checking. Students may sort the *capital goods* into the proper envelopes. This hands-on board presents opportunities for various discussions. Which *capital goods* are needed to produce which products? What would happen if certain *capital goods* were removed? What *capital goods* could be added to increase or improve *productivity*?

3-4

WHO NEEDS IT?

by Barbara Santana

Barbara Santana is a Curriculum Specialist at Bay Crest Elementary in Tampa, Florida. She has taught in the primary grades and was a Reading Specialist. She recently won first place in the Hillsborough County Rotary Awards for Economic Education.

Productivity and Capital Goods

Most third and fourth graders have a limited amount of experience with production. By providing children with these experiences, they will gain an understanding of the economic system.

Production requires the use of not only labor (people) but also *capital goods* and natural resources. By increasing production, we may also be increasing our consumption of natural resources. If natural resources are consumed unwisely, it could have a serious impact on the future of our society and the production of goods and services.

Introducing the concept of technology as it affects *productivity* will help children compare products and lifestyles of the past with those of the present. Students should realize that the products and lifestyles of the future will be different from the present. The production of goods today will probably be outdated in our children's lifetime. Improved *capital goods* will be responsible for an increase in production, and probable changes in job tasks and leisure time. Children should be aware of some of the changes they may be facing as adults.

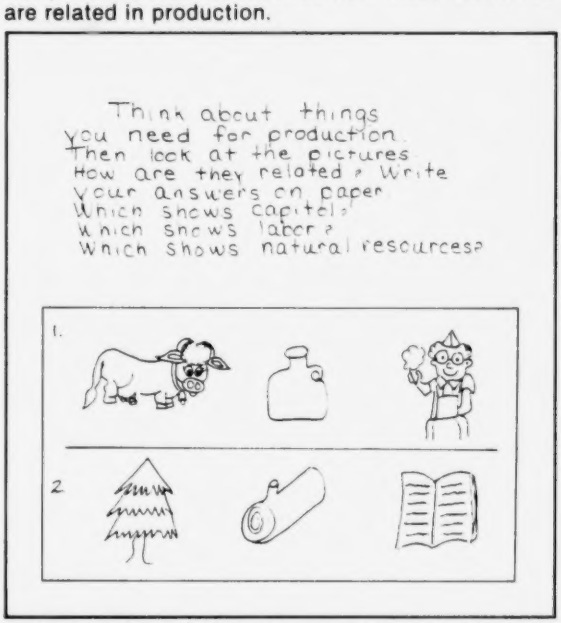
Goals

The students will:

1. Define production as the creation of goods or services.
2. Define the three basic resources needed for production as natural resources (e.g., raw materials), labor, and capital.
3. Recognize that capital goods are machinery, equipment, tools, and buildings used in the production of other goods and services.
4. Recognize technology as the use of tools and/or knowledge to produce goods and services.
5. Understand that more *capital goods* and better technology can increase *productivity*.

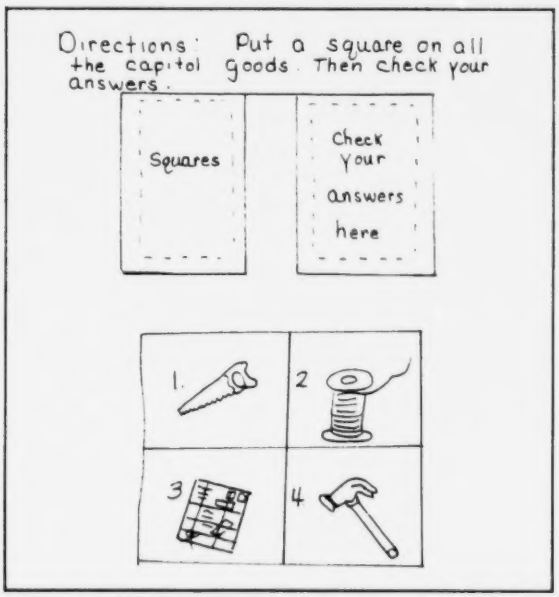
Teaching Activities

1. **Can You Match Them?** (Factors of production) Create a file-folder learning center. Make cards with pictures of natural resources, labor, and *capital goods*. Have students classify pictures and place them in the correct category. The activity can be made self-correcting by placing a number on the back of each picture and making an answer key.
2. **How Are They Related?** (Factors of production) Make a file-folder learning center. Put four or five pictures in a row that are related. Include pictures that show *capital goods* (machinery, equipment, tools, and buildings), labor, and natural resources (raw materials). Have students describe how these resources are related in production.

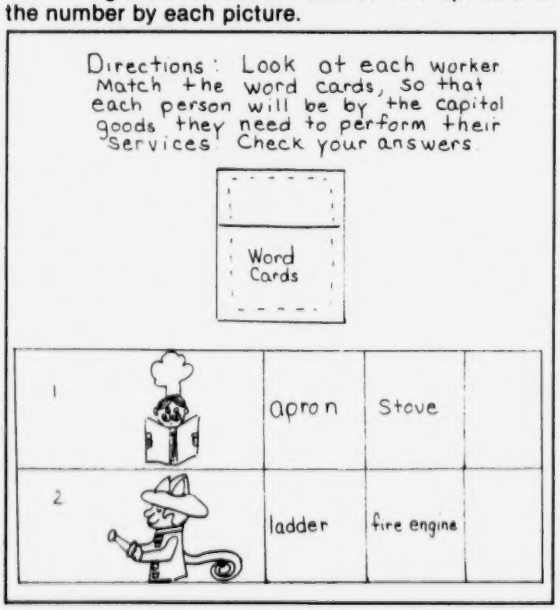


3. **Make A Collage.** (Capital goods) Have children cut out magazine pictures of *capital goods* and make a "Capital Goods Collage."
4. **Are These Capital Goods?** (Capital goods) Make a file-folder learning center. Place pictures on the page that include both *capital goods* and other things. Have students place squares of paper only on the pictures that represent *capital goods*. This activity can be made self-checking by numbering each picture and listing the number that corresponds to the picture on an answer card.

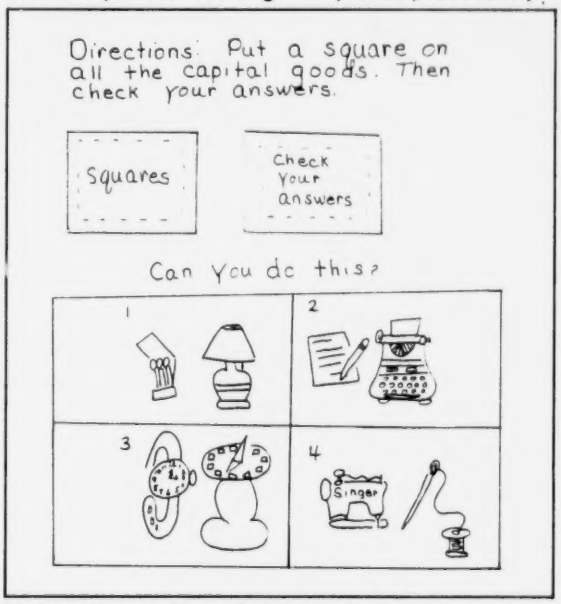
To receive a free subscription to *The Elementary Economist*, please send us your name, home mailing address, name of school, and school system (printed or typed only).



5. **Who Needs It?** (*Capital goods*) Make a file-folder learning center. Place pictures of service workers, such as a dentist or police officer, in a row. Make several small cards and print the names of *capital goods* needed to perform each job (example: dentist—drill, dental chair, and x-rays). The student must select the cards that match each job, and place them by that worker. The activity could be made self-checking by numbering the back of each card to correspond with the number by each picture.


Directions: Look at each worker Match the word cards, so that each person will be by the capitol goods they need to perform their services. Check your answers.
Word Cards
1
apron
Stove
2
ladder
fire engine

6. **Which Method Is Best?** (Technology and *capital goods*) Make a file-folder learning center. Put two pictures in each box, one showing an outdated production method and one illustrating advanced technology (example: washing clothes by hand/using a washing machine). Have students put squares on the picture in each box that illustrates the use of technology. An answer folder can make this activity self-correcting. Discuss with the class how improved technology and new *capital goods* enable people to work faster and better, thereby increasing their *productivity*. New technology and *capital goods* enable workers to increase the amount produced in a specified time period, resulting in improved *productivity*.



7. **Which Way Is Most Productive?** (Technology) Tell children you are going to engage in an experiment. You are looking for two things in their work, speed and accuracy. Put twenty multiplication problems on the board. Divide the class in half. Issue calculators to half of the class to help them with their problems. The other half of the class may only use paper and pencil. (A variation would be to form a third group who were not allowed to use anything except their heads). Give students three minutes to complete as many problems as possible. Then tabulate the correct answers. Give one point for each completed correct response. Which group was the most productive (the most points)? Repeat the task with the other group using the calculators. Was the result the same? Why not? What did the acquisition of capital goods (calculators) do to production? (Increased it.) Which method is demonstrating the use of technology? (Use of calculators.) Discuss how the use of *capital goods* increases *productivity*.

BEST COPY AVAILABLE

PAPER CUP FACTORY

by Charlotte Valenti

Charlotte Valenti is a fourth-grade teacher in Tampa, Florida, and has taught primary and intermediate grades for ten years. She has won local and state awards in economics, conducted workshops, and developed materials for teaching economics.

Productivity and Capital Goods

Children should have an understanding of *productivity* because it is basic to an understanding of how our economy works. Children should understand the three basic questions of production: 1) What is produced? 2) How is it produced? and 3) To whom will it be distributed? Since *productivity* is increased by specialization and technology, these concepts should be emphasized. Specialization refers to the division of labor among workers and regions. People do the jobs and produce the products for which they are best suited. Technology is defined as the scientific and mechanical improvement of knowledge and skills used in producing goods and services. Technology is the "how to do it" knowledge.

Goals

The students will:

1. Understand the questions which all economic systems must answer: what is produced, how is it produced, and to whom will it be distributed?
2. Define a producer as the maker of goods and/or the performer of services; production as the creation of goods and/or services.
3. Identify the factors of production as natural resources, labor, and capital goods.
4. Define capital goods as tools, equipment, machinery, and buildings that are used in the production of other goods and services.
5. Define specialization as individuals or groups concentrating on one job rather than attempting many jobs.
6. Identify how technology and capital goods increase *productivity*.

Teaching Activities

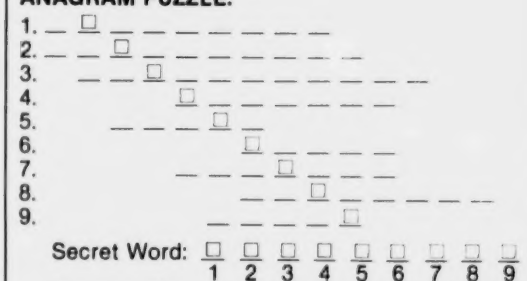
1. **Anagram Puzzle.** Identify the following terms. Then fill in the blanks. Decode the secret word by using the letters inside the squares.

WORD BANK: capital goods technology labor increase money production resources natural

DEFINITIONS:

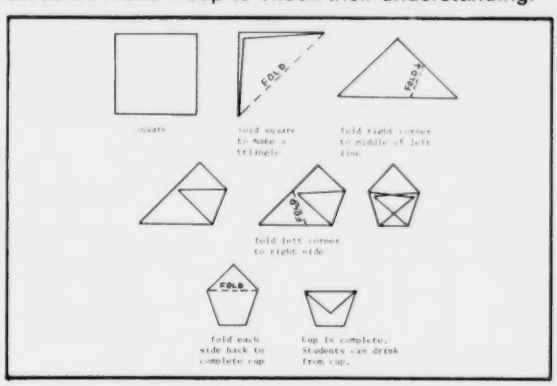
1. Raw materials, labor, and capital used in production of goods and services.
2. Scientific and mechanical knowledge and skills used in producing goods and services.
3. Process of combining resources to make goods and/or services.
4. Real, not artificial.
5. All wage-earning workers; people who are willing and able to work.
6. Anything acceptable in exchange for goods and services.
7. The resources (such as tools and machinery) used in the production of goods and services.
8. To become greater.
9. Tangible objects used to satisfy individual wants and needs.

ANAGRAM PUZZLE:



Answer Key: 1. resources; 2. technology; 3. production; 4. natural; 5. labor; 6. money; 7. capital; 8. increase; 9. goods; Secret Word: ECONOMICS

2. **Paper Cup Factory.** Divide class into groups of five or more. Explain that each group is a factory which produces paper cups. Demonstrate how to make the cups, using typing paper (ditto paper). The paper needs to be torn or cut in order to make a square. Have students make a cup to check their understanding.


square
fold square to make a triangle
fold right corner to middle of left line
fold left corner to right side
fold each side back to complete cup
Cup is complete. Students can drink from cup.

To receive a free subscription to *The Elementary Economist*©, please send us your name, home mailing address, name of school, and school system (printed or typed only).

In the first phase, have each student make the complete cup. Allow the groups five minutes to produce as many cups as possible. After five minutes, count and record the production of each group. Then tell the groups to begin production again, but this time specialize. Each student will do only one step of the production in an assembly line. Help students determine the different steps in production. One student may act as the supervisor. Again allow the groups five minutes to produce as many cups as possible. Count and record the number of cups produced. Discuss how *productivity* may be increased by specialization. This activity can be continued by changing the jobs within the groups.

Note: Individual production may be more productive than an assembly line with specialization if the task is not too complex or students on the assembly line have difficulty coordinating their work or learning their jobs.

Have each group list the advantages and disadvantages of individual production and assembly line production. Discuss possible technology which might be used to increase or improve production (better paper). Have the groups list any tools, machinery, or equipment which could be used as an aid in the production of paper cups. Emphasize that the tools, machinery, and equipment used in production are *capital goods*. Discuss specialization and how it may have helped or hindered the production of the cups.

Discuss various types of businesses and the ways businesses might apply the knowledge gained from this activity. The class may need an example such as a bottling company: the personnel involved in operating this business, the types of tools and equipment, the building to house the business, etc.

3. **Cause And Effect Worksheet.** Match each cause statement to its effect statement.

CAUSE:

_____ 1. The local shoe factory has problems with its main sewing machine.
_____ 2. A storm tore down all the power lines.
_____ 3. The school cafeteria has a defective water pump.
_____ 4. Cars using too much gas have caused an energy problem.
_____ 5. Mom has purchased a new super powered vacuum cleaner.
_____ 6. The washing machine at home broke.
_____ 7. Maria has no scissors to cut her pictures out for the collage.
_____ 8. Dad has a dull blade on the lawn mower.

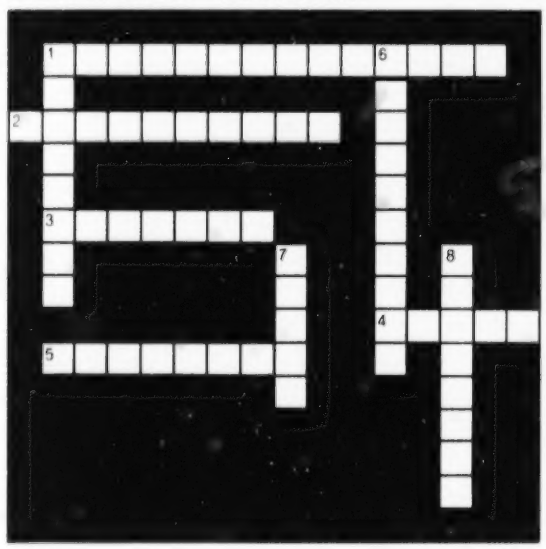
EFFECT:

a. All the lights went out.
b. There will be a problem preparing lunch.
c. It takes twice as long to cut the grass.
d. Manufacturers will produce smaller cars which use less gas.
e. There is a decrease in the number of tennis shoes produced this week.
f. The floors and carpets have been much cleaner lately.
g. Mom called a repairman so she could do the laundry.
h. She tears the pictures out of the magazines.

Answer Key: 1. e, sewing machine; 2. a, power lines; 3. b, water pump; 4. d, cars; 5. f, vacuum cleaner; 6. g, washing machine; 7. h, scissors; 8. c, blade/lawn mower.

4. **Crossword Puzzle.**

WORD BANK: MONEY CAPITAL TECHNOLOGY EXCHANGE GOODS SERVICES PRODUCER SPECIALIZATION PRODUCTION



Across:

1. A situation where workers do particular jobs.
2. Process of combining resources to make goods and/or services.
3. Resources used to produce goods and services, such as tools and machinery.
4. Tangible objects used to satisfy individual wants and needs.
5. Transferring of goods and services.

Down:

1. Something intangible bought and sold; satisfies a want or need.
6. Scientific and mechanical knowledge and skills used to produce goods and services.
7. Anything accepted in exchange for goods and services.
8. A person or group who organizes production to make goods or services.

Answer Key: Across: 1. specialization; 2. production; 3. capital; 4. goods; 5. exchange; Down: 1. services; 6. technology; 7. money; 8. producer

To receive a free subscription to *The Elementary Economist*©, please send us your name, home mailing address, name of school, and school system (printed or typed only).

(continued from page 1)

can be divided into a series of simpler operations in which each job can be performed in a shorter amount of labor time by a trained worker using specialized equipment. Mass production techniques are found in all major industries. The assembly line developed by Henry Ford to produce automobiles is an excellent historical example. If the production of widgets involves not only hole punching, but also tracing, stapling, counting, and collating, then specialization and division of labor will probably increase in large-scale widget production.

Why should elementary students understand *productivity*? *Productivity* is a key determinant of the standard of living of society and individuals. When workers produce inoreased output, businesses sell the extra output and receive increased revenues. Increased revenues allow higher wages to be paid to workers. In addition, some of the funds are invested in more human or physical *capital*, making the workers more productive and leading to further wage increases.

If *productivity* increases at a 3.2 percent annual growth rate (the average growth in this country from 1948 to 1965), real income or purchasing power would double in 22 years. When *productivity* increases at only a 1.2 percent rate (the average rate over the 1973 to 1978 period), then 58 years would be required to double real income. The slow growth of *productivity* in the last decade has made *productivity* a major national issue. *Productivity* is important to businesses as they attempt to increase output, reduce costs, and meet the wage demands of workers. *Productivity* is important also to society, as it attempts to increase economic growth and improve the material standard of living. *Productivity* can be taught easily during most production activities in the classroom. Students will begin to understand the interdependence of the economic world through an understanding of *productivity*.

ERIC Wants the Economist

The Educational Resources Information Center (ERIC), the major national organization which disseminates "as widely as possible, timely and significant materials of interest to the educational community," has agreed to make an unusual departure from its guidelines. ERIC says: "We would like to include **The Elementary Economist**, Volumes I and II, in the system as one document. Actually, newsletters are not appropriate, as a rule, for ERIC. However, since these are thematic, offer good teaching activities, and are of good quality, we will make an exception."

News

The next Annual Meeting of the National Advisory Board will be held in February at the headquarters of the Bank of America in San Francisco, at their invitation. The National Economic Center is inaugurating a California program with the support of the Bank of America which may in time serve as a model program for grades K-6 for the entire country. This year's annual meeting will be hosted by the Bank of America at their international headquarters in San Francisco.

At the last Annual Meeting, William Waltrip, President and C.O.O. of Pan American World Airways and National Advisory Board member, hosted a dinner meeting sponsored by Pan American. The featured speaker was Dr. Herbert Stein, senior fellow of the American Enterprise Institute and former chairman of Nixon's and Ford's Council of Economic Advisors.

Newly elected National Advisory Board Chairman Samuel S. Dennis III listens as Lesley College President Don A. Orton makes a point at the National Economic Center's Annual Meeting held in the Chase Manhattan boardroom in New York City. Dennis is senior partner of the Boston law firm of Hale and Dorr. Luncheon speaker was Fred Rogers of "Mr. Roger's Neighborhood" TV fame.

Permission is hereby granted to reproduce in any quantity for classroom use in whole or in part any portion of this publication. For other uses please contact The National Center at Lesley College.

Editors:
Barbara Zicht
Eleanor Sabini
Kathryn Furlong
Designer: Barbara Wrenn
Layout Artist: Lee-Ann Larson

Published by The National Center of Economic Education for Children, Lesley College, Cambridge, MA 02238.
Phone: (617) 868-9600.